

Atty. Docket No. 014811-96.22DV
Application. No. 10/633,966
Amendment Responsive to June 14, 2006 Office Communication

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-35 are canceled.

36. (Currently Amended) A method ~~for treating obesity by releasing~~ of releasing cholecystokinin peptide in a subject, the method comprising (A) administering to the subject an effective amount of a luminal cholecystokinin releasing factor polypeptide-oligomer conjugate, said conjugate comprising

- i) a luminal cholecystokinin releasing factor polypeptide comprising a lysine residue;
- ii) an oligomeric moiety attached to the N-terminus of the luminal cholecystokinin releasing factor polypeptide-oligomer conjugate; and
- iii) an oligomeric moiety attached to the lysine residue;

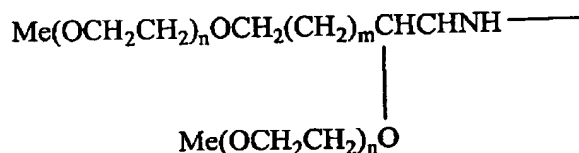
whereby upon administration to the subject, said luminal cholecystokinin releasing factor polypeptide-oligomer conjugate or luminal cholecystokinin releasing factor polypeptide compound integrates into a cell membrane of the gut epithelium of the subject wherein the luminal cholecystokinin releasing factor polypeptide-oligomer conjugate or luminal cholecystokinin releasing factor polypeptide binds with a target receptor on the surface of an epithelial cell, thereby providing release of cholecystokinin peptide, ~~and~~
(B) ~~inducing satiety, whereby food intake is reduced.~~

37. (Previously presented) The method of claim 36, wherein the oligomeric moiety attached to the N-terminus of the luminal cholecystokinin releasing factor peptide is a branched oligomeric moiety.

38 (Previously presented) The method of claim 37, wherein the branched oligomeric moiety has the following formula:

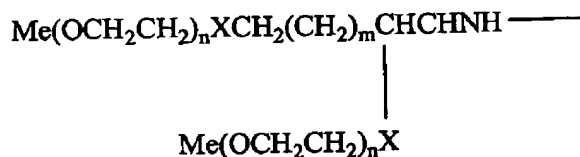
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where n is from 3 to 230 and m is from 0 to 20.

39. (Previously presented) The method of claim 37, wherein the branched oligomeric moiety has the following formula:



where n is from 3 to 230 and m is from 0 to 20 and X is selected from the group consisting of N, O or S.

40. (Previously presented) The method of claim 37, wherein the branched oligomeric moiety has a total average molecular weight of 4,000 to 10,000 Daltons.

41. (Previously presented) The method of claim 36, wherein the oligomeric moiety is attached to the N-terminus using a hydrolyzable linker.

42. (Previously presented) The method of claim 37, wherein the branched oligomeric moiety is attached to the N-terminus using a non-hydrolyzable linker.

43. (Previously presented) The method of claim 36, wherein the oligomeric moiety attached to the N-terminus of the luminal cholecystokinin releasing factor polypeptide has a total average molecular weight of 4,000 to 10,000 Daltons.

44. (Previously presented) The method of claim 36, wherein the oligomeric moiety is attached to the lysine residue using a hydrolyzable bond.

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45. (Previously presented) The method of claim 36, wherein the oligomeric moiety attached to the lysine residue is a linear oligomeric moiety.

46. (Previously presented) The method of claim 45, wherein the linear oligomeric moiety is attached to the lysine residue using a hydrolyzable bond.

47. (Previously presented) The method of claim 36, further comprising a lysine residue at the C-terminus of the luminal cholecystokinin releasing factor polypeptide.

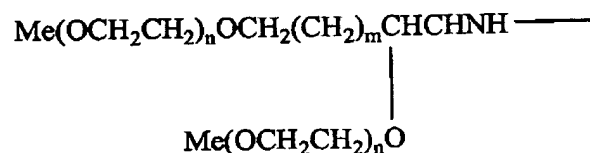
48. (Previously presented) The method of claim 47, further comprising a linear oligomeric moiety attached to the lysine residue at the C-terminus of the luminal cholecystokinin releasing factor polypeptide.

49. (Withdrawn) A method of treating obesity in a subject comprising administering to the subject an effective amount of a luminal cholecystokinin releasing factor polypeptide comprising

- i) a lysine residue;
- ii) an oligomeric moiety attached to the N-terminus of the luminal cholecystokinin releasing factor polypeptide; and
- iii) an oligomeric moiety attached to the lysine residue.

50. (Withdrawn) The method of claim 48 49, wherein the oligomeric moiety attached to the N-terminus of the luminal cholecystokinin releasing factor peptide is a branched oligomeric moiety.

51. (Withdrawn) The method of claim 49 50, wherein the branched oligomeric moiety has the following formula:

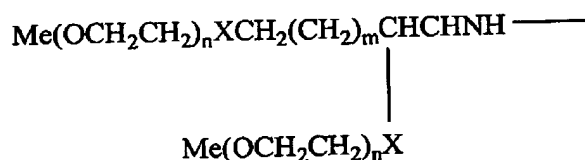


where n is from 3 to 230 and m is from 0 to 20.

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52. (Withdrawn) The method of claim 49 50, wherein the branched oligomeric moiety has the following formula:



where n is from 3 to 230 and m is from 0 to 20 and X is selected from the group consisting of N, O or S.

53. (Withdrawn) The method of claim 50 49, wherein the branched oligomeric moiety has a total average molecular weight of 4,000 to 10,000 Daltons.

54. (Withdrawn) The method of claim 48 49, wherein the oligomeric moiety is attached to the N-terminus using a hydrolyzable linker.

55. (Withdrawn) The method of claim 50 49, wherein the branched oligomeric moiety is attached to the N-terminus using a non-hydrolyzable linker.

56. (Withdrawn) The method of claim 50 49, wherein the oligomeric moiety attached to the N-terminus of the luminal cholecystokinin releasing factor polypeptide has a total average molecular weight of 4,000 to 10,000 Daltons.

57. (Withdrawn) The method of claim 49 48, wherein the oligomeric moiety attached to the lysine residue using a hydrolyzable bond.

58. (Withdrawn) The method of claim 49 48, wherein the oligomeric moiety attached to the lysine residue is a linear oligomeric moiety.

59. (Withdrawn) The method of claim 58 57, wherein the linear oligomeric moiety is attached to the lysine residue using a hydrolyzable bond.

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60. (Withdrawn) The method of claim ~~49~~ 48, further comprising a lysine residue at the C-terminus of the luminal cholecystokinin releasing factor polypeptide.

61. (Withdrawn) The method of claim 60 ~~59~~, further comprising a linear oligomeric moiety attached to the lysine residue at the C-terminus of the luminal cholecystokinin releasing factor polypeptide.

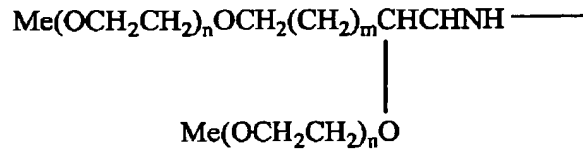
62. (Currently Amended) A method ~~for treating obesity by releasing~~ of releasing cholecystokinin peptide in a subject, the method comprising (A) administering to the subject an effective amount of a luminal cholecystokinin releasing factor polypeptide-oligomer conjugate, said conjugate comprising

- i) a luminal cholecystokinin releasing factor polypeptide comprising a first lysine residue;
- ii) a second lysine residue at the C-terminus of the luminal cholecystokinin releasing factor polypeptide-oligomer conjugate;
- iii) a branched oligomeric moiety attached to the N-terminus of the luminal cholecystokinin releasing factor polypeptide-oligomer conjugate using a non-hydrolyzable linker;
- iv) a linear oligomeric moiety attached to the first lysine residue of the luminal cholecystokinin releasing factor polypeptide-oligomer conjugate using a hydrolyzable bond; and
- v) a linear oligomeric moiety attached to the second lysine residue at the C-terminus of the luminal cholecystokinin releasing factor polypeptide-oligomer conjugate,

whereby upon administration to the subject, said luminal cholecystokinin releasing factor polypeptide-oligomer conjugate or luminal cholecystokinin releasing factor polypeptide compound integrates into a cell membrane of the gut epithelium of the subject wherein the luminal cholecystokinin releasing factor polypeptide-oligomer conjugate or luminal cholecystokinin releasing factor polypeptide binds with a target receptor on the surface of an epithelial cell, thereby providing release of cholecystokinin peptide, and (B) ~~inducing satiety, whereby food intake is reduced.~~

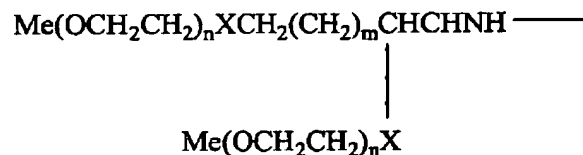
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63. (Previously presented) The method of claim 62, wherein the branched oligomeric moiety has the following formula:



where n is from 3 to 230 and m is from 0 to 20.

64. (Previously presented) The method of claim 62, wherein the branched oligomeric moiety has the following formula:



where n is from 3 to 230 and m is from 0 to 20 and X is selected from the group consisting of N, O or S.

65. (Previously presented) The method of claim 62, wherein the branched oligomeric moiety has a total average molecular weight of 4,000 to 10,000 Daltons.

66. (Withdrawn) A method of treating obesity in a subject, comprising administering to the subject an effective amount of a luminal cholecystokinin releasing factor polypeptide comprising

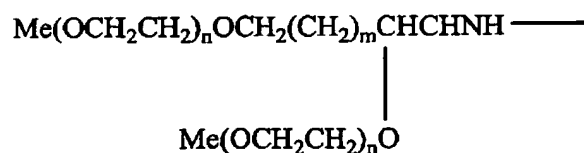
- i) a first lysine residue;
- ii) a second lysine residue at the C-terminus of the luminal cholecystokinin releasing factor polypeptide;
- iii) a branched oligomeric moiety attached to the N-terminus of the luminal cholecystokinin releasing factor polypeptide using a non-hydrolyzable linker;
- iv) a linear oligomeric moiety attached to the first lysine residue of the luminal cholecystokinin releasing factor polypeptide using a hydrolyzable bond; and

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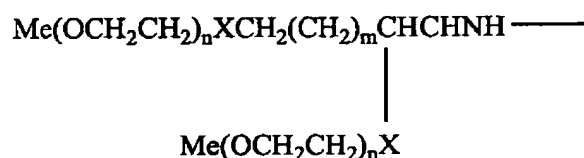
- v) a linear oligomeric moiety attached to the second lysine residue at the C-terminus of the luminal cholecystokinin releasing factor polypeptide.

67. (Withdrawn) The method of claim ~~65~~ 66, wherein the branched oligomeric moiety has the following formula:



where n is from 3 to 230 and m is from 0 to 20.

68. (Withdrawn) The method of claim 66 ~~65~~, wherein the branched oligomeric moiety has the following formula:



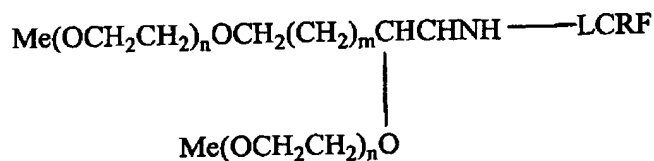
where n is from 3 to 230 and m is from 0 to 20 and X is selected from the group consisting of N, O or S.

69. (Withdrawn) The method of claim 66 ~~65~~ wherein the branched oligomeric moiety has a total average molecular weight of 4,000 to 10,000 Daltons.

70. (Withdrawn) A method of treating obesity in a subject comprising administering to the subject an effective amount of a compound selected from the group consisting of:

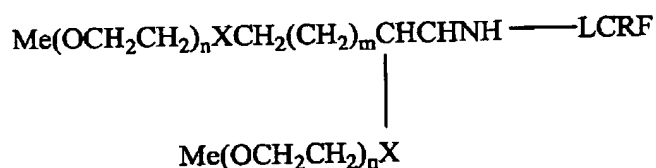
- a) A compound of the formula:

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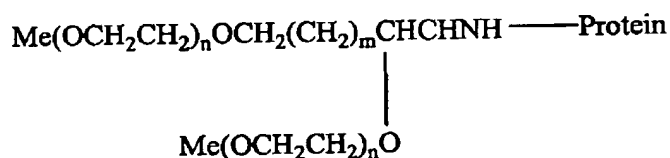
where n is from 3 to 230 and m is from 0 to 20;

b) A compound of the formula:



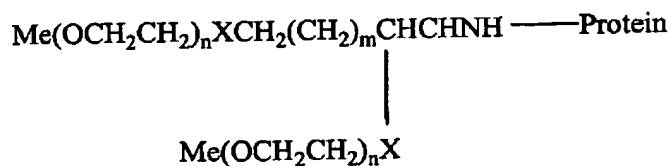
where n is from 3 to 230 and m is from 0 to 20 and X is selected from the group consisting of N, O or S;

c) A compound of the formula:



where n is from 3 to 230 and m is from 0 to 20; and

d) A compound of the formula:



where n is from 3 to 230 and m is from 0 to 20 and X is selected from the group consisting of N, O or S;

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and any combination thereof.

71. (Previously presented) The method of claim 36, wherein the administering to the subject comprises orally administering the luminal cholecystokinin releasing factor polypeptide-oligomer conjugate to the subject.

72. (Previously presented) The method of claim 62, wherein the administering to the subject comprises orally administering the luminal cholecystokinin releasing factor polypeptide-oligomer conjugate to the subject.

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